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Final Report, for Period 12 June 1979 — 29 March 1980

Prepared For:

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This task was authorized to redesign the glove attachment tooling on the DPE Outergarment so that the heat seal overlaps the cuff making peel loading impossible during inspection. The tooling was designed, fabricated, and tested. It succeeds in preventing peel loading of the seam while maintaining the same shear strength as with the previous tooling.		

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FOREWARD

The work reported herein was conducted by ILC DOVER, Frederica, Delaware, for ARRADCOM, CML/Ballistics Procurement, APG (Edgewood Area), Maryland in accordance with Contract DAAK11-79-C-0066, Task Order Number 4. Mr. Donald R. Cohee was the Program Manager for ILC DOVER. Mr. Wayne Davis was the Contract Monitor for the Chemical Systems Laboratory. This work was accomplished between 12 June 1979 and 29 March 1980.

This technical report has been reviewed and is approved.

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INTRODUCTION

This task was authorized to redesign the glove attachment heat seal tooling in order to eliminate the possibility of pulling the seam in the peel mode. In use, the seam is loaded in shear. Inspection procedures, however, can load the seam in peel, which can initiate glove failures at sites of seam misalignment. The object of the redesign in tooling was to make the glove attachment heat seal overlap the sleeve cuff, making peel loading impossible when the seam is inspected.

COMPLETED ACTIVITY

The following work was performed during the completion of this task order:

- (1) The glove tooling was redesigned. The glove attachment seam can be made to overlap the cuff by changing the location of the scribed line. The first line indicates how far the separator is inserted in the glove, and the second line locates the sleeve cuff over the separator. This line is visible through the translucent glove material. The actual heat seal dies remain unchanged.
- (2) The new glove separators were fabricated, and the necessary drawings made. Seam samples were made, tested, and found adequate per specification. ECP Number 80-0058-004 includes these tool drawings and test results.
- (3) All changes to the specification, tool drawings and test results have been submitted with ECP Number 80-0058-004, proposing to implement these changes.

CONCLUSION

The redesigned glove tooling is available for use in the production of DPE Outergarments.